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MANPOWER

IN JANUARY President Eisenhower called on Congress to strengthen the citizen Reserves to meet the perils of the atomic age. He pleaded for a rounded Reserve system that would require all young men to undergo some form of training or service. He listed five areas in which action should be taken to strengthen the system. In regard to the fifth, he said:

"I recommend that the Congress enact legislation which would permit the states to raise and maintain in time of peace *organized militia forces* which would take over the National Guard's domestic missions when they were called into Federal service, and *support civil defense activities*." In commenting on the President's proposal, the NY Times pointed out that the program to equalize the obligation for reserve services would "provide for civilian defense cadres."

A second step towards lining up a manpower reserve, was taken by the Office of Defense Mobilization when it established an "executive reserve" of industry and labor union leaders trained for Government duty in wartime. This is expected to develop into a Government-wide reserve of executives pledged to drop their private affairs and report to Washington immediately on receiving notice of full mobilization. Each businessman reservist will be tabbed in advance for his wartime post in ODM or the agencies which would sprout out of ODM in wartime-defense production, price administration, wage control, rationing, and so on.

In keeping with its idea of creating a sort of civilian counterpart of the military reserves, ODM will summon its standby force to "war games" and assign sample mobilization problems to be solved.

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NEW NATIONAL EXERCISE IN JUNE

ANOTHER National Civil Defense exercise, similar to last year's Operation Alert, has been scheduled for this June. The dates are now set as June 15-16, 1955. All Civil Defense Directors throughout the United States, will doubtless start at once, if they have not already done so, to plan local exercises to test to the limit the availability and resources of their civil defense forces and reserves. Certain assumptions and standards will be set by both the Federal and State officials; meanwhile local authorities are at liberty to plan additional exercises on the local level, setting problems for their own forces in order to give the maximum amount of training.

In order to make the most of the lessons learned last spring, FCDA has published a report which points up some of the weaknesses which should be strengthened in the new exercise. The fundamental purpose of the test will be to permit every level of defense to determine:

- 1) What resources it has available for use;
- 2) The total resources it *should* have available, in order to carry out its job.

Such determinations will clarify to each Director:

- 1) What additional recruiting is necessary, among groups whose normal activities fit them for the necessary job;
- 2) What additional training is necessary in his community;
- 3) What the gaps are in his inventories, based on the availability of equipment and resources within the community;
- 4) What additional equipment he would need which is *not* available locally.

Some of the lacks last spring were:

- 1) Failure to incorporate a "time-phase" into the problem. Lacking this, it was impossible to test all emergency operations because some problems essential for the test

would not normally develop within the first hours after a bomb drop.

- 2) Failure to clarify relationships between Civil Defense and other agencies in the community;

- 3) Incomplete messages, especially those involving transportation, lacking sufficient data on which to base decisions, especially with respect to weight, cubage, and packaging of common CD supplies and equipment; also incomplete messages from the field, especially on primary damage.

- 4) Unrealistic thinking on such matters as the restoration of power, telephone, hospital and water facilities, which could not have been restored during the first 24 hours;

on limitations of transportation in providing support to stricken towns;

on too-limited use of pre-attack evacuation concept.

In order to make the 1955 exercise run more smoothly, 1) FCDA will co-ordinate its standards with the Office of Defense Mobilization; both agencies will ask State and local directors to follow standards mutually agreed on by the two agencies;

- 2) the next exercise will be "time-phased" to assure realistic pre-planning, training, and maximum participation by all CD organizations;

- 3) communications will be limited, so consequently information transmitted will also be limited. Volume of communications will be reduced through decentralization of responsibility.

While county and local organizations are testing and training their local resources, the Federal Civil Defense will be:

- 1) Working with Federal agencies and other Departments to estimate their available resources and use them to the best advantage;

- 2) Working with the Bureau of Narcotics to revise regulations and procedures whereby civil defense

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JUNE EXERCISE

(Continued from page 1)

organizations will be able to obtain and use certain narcotics to relieve pain and treat the injured without violating the Narcotics Laws;

3) forming and studying pilot model organizations in the various fields of transport, viz., air, rail, highways, and water;

4) working on statements of understanding with certain national industry groups;

5) working with the Office of Defense Mobilization and other Federal agencies to improve plans and procedures for Federal wartime control of transportation, including the transport logistics for civil defense.

In line with the President's delegation of authority, FCDA and the Public Health Service have already held a three day conference for the purpose of clarifying and improving civil defense medical operations. The results of this and similar conferences will be tested as much as possible during the June alert.

These are but some of the problems which will be studied, worked over, and examined during the busy days of June 15-16. Each community should study carefully its own participation in last year's test, and be prepared to advance far beyond that point this year. Where weaknesses existed last year, there should now be strengths; better control; better communications; better trained personnel; more resources in all divisions. Only by using what you have to the maximum will it grow—like a muscle, civil defense will atrophy if it is not stretched and exercised and used.

Britain's new civil defense plans, based on the ever-expanding weapons, center on 48 reserve, mobile battalions covering the country, ready to be moved, wholly or in part, to whatever areas they are needed.

London Times 2/26.

COMMONWEALTH OF PENNSYLVANIA STATE COUNCIL OF CIVIL DEFENSE

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Free subscriptions to this publication may be obtained by writing to the State Council of Civil Defense, Quakertown, Penna.

TODAY'S POSITION

ON FEBRUARY 14, 1955, Governor Peterson appeared before members of the House Appropriations Committee. Included in his remarks were the following:

"So long as (enemy) capabilities exist, the threat of war exists. If an attack should occur today, here is the picture in certain broad civil defense areas:

Federal Operations Centers

FCDA National Emergency Operations Center at Battle Creek would be activated immediately upon receipt of warning. The seven FCDA Regional Centers would also be quickly activated.

State and Local Operations Centers

Most States and principal cities have operations centers which they would activate. Some of these would be ineffective because of vulnerable locations and lack of proper communications equipment and trained personnel.

Public Preparedness

About three-fourths of the people would have some idea about what to do to protect themselves, but this knowledge would be sketchy. Many lives would be lost unnecessarily because of this lack of individual preparedness.

Dissemination of Warning

Warning of attack would be received by civil defense officials in all target areas in a matter of minutes. Warning devices have been financed which, when installed, will provide warning to virtually all the people in the target areas. When they do hear the warning, about two-thirds of the people in the target areas would not now recognize the signals.

Evacuation

Presently anticipated warning time would not be sufficient to permit complete evacuation from the densely populated areas of all principal cities. Even if warning time were substantially increased right now, many cities, because of insufficient evacuation planning and preparations, would not be able to take advantage of the warning time to evacuate their people. We should have four to six hours' warning time in approximately two years.

Communications with the Public

The Conelrad plan for emergency broadcasting would be invoked and

EDITOR RESIGNS

It is with regret that we announce that THE KEYSTONE DEFENDER Editor, Miss Alison Raymond, has resigned, as of April 15th. She started THE DEFENDER in March of 1952 and has been its editor since that time.

The publication will be continued with a minimum of change. Please send all communications to the State Council of Civil Defense, Quakertown, Penna.

within minutes the 1400 AM radio stations now participating in the plan would be ready to broadcast civil defense information and instructions.

Operational Communications

Only about one-half of the communications facilities needed for effective operation of civil defense forces would be in place.

Medical Facilities

Medical supplies and equipment on hand would be sufficient, with some exceptions, to provide emergency medical care to about two and one-half million surviving casualties for three weeks following attack. In an all-out attack, millions would die through lack of medical facilities.

Radioactive Fall-Out

If the attack were such to produce radioactive fall-out, many additional fatal and non-fatal casualties would result because of the serious shortage of radiological monitoring instruments, training, and protective cover. Lacking such facilities, civil defense workers would not be able to identify the contaminated areas or cope with the problem.

Emergency Welfare

Some of the equipment for emergency welfare services would be available from surviving local community outlets. Because of additional welfare problems created by evacuation, however, there would be desperate need for additional mass feeding facilities and for emergency lodging and other welfare services.

Engineering

There would be a marked deficiency in certain types of engineering equipment required to insure potable and sufficient water, and standby light and power for emergency use.

(Continued on next page)

TODAY

Transportation

The transportation resources of the nation, while having the potential to meet almost any emergency, would be seriously handicapped by disruption and damage, and by the lack of control centers and adequate planning.

Police

Regulatory forces generally are insufficient to cope with the tremendous problems which would arise in such areas as control and regulation of traffic and prevention of mass hysteria and mob action.

Wardens

The number of wardens available would be only one-fourth the number required, with only a small percentage of these being fully trained and equipped.

Governor Peterson continued:

"From this summary, the deadly seriousness of the problem is obvious. We are striving to accomplish as large a portion of the task as it is humanly possible to do in the time allotted us and with the funds available."

Accomplishments he noted were the conferences held in Washington for Governors and for Mayors, to produce a greater awareness and greater support on the part of State and municipal leaders; the delegation of responsibility in civil defense matters to responsible Federal agencies; the start made in the development of evacuation plans in many congested areas; and the matter of appropriations. He stated that in 1954 more than \$9 million were matched with FCDA funds, bringing a total of mutual investment between Federal and States for civil defense supplies, to nearly \$90 million. Another \$13 million, he said, has been allocated for matching purposes during the current fiscal year.

In closing, Governor Peterson said, "No one, so far as I know, in any sphere of human activity, understands fully the implications of the atomic age. Neither is anyone fully prepared to meet the problems it presents. Civil Defense in America is inadequate to meet an enemy attack today. Certainly in view of the tremendous destructiveness of today's superbombs and improved methods of delivery by intercontinental bombers, no one could expect that civil defense would have pat solutions.

"Nothing in life can be adequately judged unless placed in perspective. And I think it is only fair to point out that in the light of these facts, the notable thing is that civil defense

has made the progress it has. We must do a better job, and we can do a better job.

"All Americans are indebted to the hundreds of thousands of patriotic self-sacrificing men and women who are today participating in civil defense.

ECONOMIC BLUEPRINT

IT WAS announced on March 19th that Defense Mobilizer Arthur Fleming has under study an economic mobilization plan under which the Civil Defense Administration would be given authority to "initiate and arrange minimum survival" stabilization measures.

The blueprint proposes to turn over full authority to local civil defense and military personnel to enforce such regulations as needed to control rents, prices, rationing, etc., following attack.

The post-attack plans include proposals or rules of action to deal with bank deposits, withdrawals, currency replacements and other indirect forms of restoring some semblance of local economic order.

The report is based on the assumption that the atomic attack would be of such devastating nature that broad-scale planning must be contemplated immediately.

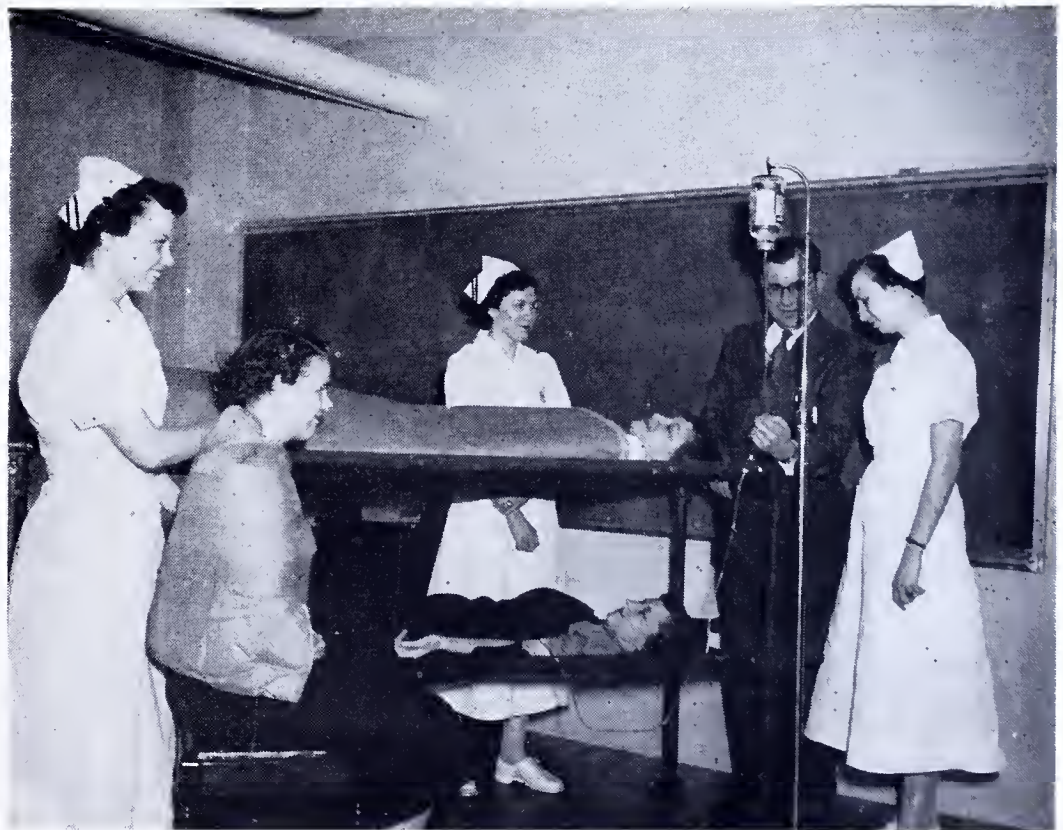
They are rendering a tremendous service and have established in every State and Territory skeletal organizations ready to be expanded to meet the situation. If we will join with them, we can build the strength which will permit America to survive."

Edward Phelps, Assistant Director for Stabilization, believes local authorities should plan restoration of communications after they are destroyed since "guidance from a Federal or central headquarters may be virtually impossible."

"Obviously I do not envisage someone crawling out of the rubble waving a price regulation," Mr. Phelps said, "but I do suggest that certain minimum and simple rules of economic behavior may properly supplement other survival rules when it is time to move beyond the first instinctive or pre-arranged measures.

"Moreover, it seems to me that only in a manner similar to this can the Federal establishment have any sense of fulfilling its responsibility in this field prior to attack."

[See page 6 for a fuller discussion of economic effects of defense planning.]



Civil Defense training has been incorporated as part of the curriculum in many nursing schools throughout the Commonwealth. This photo was taken at the Butler County Memorial Hospital, where nurses are learning how to handle transfusions.

The double cot is CD equipment, as well as the "paper" blanket on the top patient, and the burn pad on the seated patient.

CONELRAD

(Taken from *Aircraft Flash*, 1955.)

EXCLUDING the military systems, there are over 700,000 radio transmitters of various types in the nation, any one of which could give an air attack guidance if not controlled under CONELRAD.

Under Conelrad, broadcasts are jumped from one station to another at intervals varying from 5 to 30 seconds. This fluxing and shifting of broadcast from station to station causes radio compasses or direction finders in aircraft to swing off in all directions, as they follow each new radiation. This does not mean that planes cannot find their way to targets by such means as celestial navigation, deadreckoning, or by actually seeing the target—but it does mean that they cannot come in on a target by using a radio broadcast. Furthermore, all stations then operating in CONELRAD reduce their power to five kilowatts, giving out uniform emanations, and fix their frequencies at either 640 or 1240 kilocycles. For the pilot and navigator, the experience is much the same as that of people trying to find the right direction in a black forest, with lights flashing every few seconds from many different directions.

Like all other phases of air defense planning, CONELRAD is extremely simple in principle, but its engineering, technical, and coordination problems are colossal, for it involves the cooperation of virtually all commercial AM, FM, and TV stations in the nation, plus all other licensed transmitters, plus those of the military.

Adding to the magnitude of the problem is the fact that all commercial and non-commercial transmitters participate on a voluntary basis, and in this respect resemble the Ground Observer Corps. Not only do the broadcasting stations receive no funds for their participation, they actually spend considerable of their own money in developing, installing, maintaining, and operating special equipment to make CONELRAD operative.

It is estimated that well over \$3 million has been expended by commercial broadcasting stations for this purpose thus far. Moreover, there is a group of stations known as "Skywave" key stations, which have volunteered to operate at their own expense, on a 24-hour basis, for the specific purpose of alerting the nation in an emergency. There are about 100 of these "Skywave" stations now enrolled in the system, whose costs run about \$3000 per year over and above

their normal costs for operations. As of this writing (January, 1955) there are an estimated 4000 AM, FM, and TV stations participating in CONELRAD.

Some questions naturally arise at this point. How did all this come about? Who runs CONELRAD and how? Under what authority is it established?

From Pearl Harbor day, when radio communications in Hawaii had to be shut down for two weeks in order not to give the Japanese "homing" points for another attack, a great deal of thought and planning was devoted to developing a system which would:

"Prevent enemy aircraft from using our radio, radar and television transmitters as navigation or bombing aids when attacking the United States."

On December 10, 1951, the President of the United States issued an Executive Order requiring that "All devices capable of emitting electromagnetic radiation between 10 kilocycles and 100,000 megacycles which can be used for navigational purposes beyond five miles" must either be shut down or operated in a controlled manner when the approach of enemy aircraft is detected.

Under this Executive Order, CONELRAD was set up as a joint endeavor of:

- 1) Department of Defense;
- 2) Federal Communication Commission;
- 3) Office of Defense Mobilization.

The Secretary of Defense assigned the CONELRAD mission to the United States Air Force which, in turn, designated the Continental Air Defense Command as the agency for putting the system into operation. This was natural, as this Command is responsible for protecting the United States against air attack as well as providing warning to all civil defense organizations and other military units.

Of course FCC coordination, cooperation, liaison and technical assistance in the program is of utmost importance for, as the licensing agent for all radio, radar and TV stations except government-owned transmitters, its authority is subtle but powerful.

An idea of the breadth and scope of the project may be gained from the number of stations participating:

All AM, FM, and TV; experimental and auxiliary broadcasting services; experimental radio services; public radio communications services; land stations in the Maritime Service; shipboard stations in the

Maritime Mobile Service; public safety radio service stations; industrial radio service stations; amateur stations; land transportation radio service stations; disaster communications radio service stations and stations in international broadcast and facsimile broadcast service.

In addition many stations of the Government, not licensed by FCC, also cooperate with CONELRAD.

Adding these stations up, plus a few classified operations, the number of transmitters reaches well over a million. Nor is this all, for FCC has jurisdiction over Alaska, Hawaii, Puerto Rico, and the Virgin Islands and, in addition to working on CONELRAD with these areas, is also developing expansion plans with Canada, Cuba, and Mexico.

Certain administrative and operational costs are borne by the Air Force. For instance, about \$250,000 per year is transferred from USAF funds to FCC to cover salaries, travel, and communications costs for FCC personnel working on CONELRAD. A heavy cost burden, probably the largest in the system, to cover payment for all telephone lines and calls used for alerting purposes, is also carried by the Air Force. The costs of modification of equipment, payment of overtime and extra manpower are paid voluntarily by the participating stations.

Here is how an alert is activated: On declaration of air defense warning red or yellow by the air division commander, certain broadcast stations in the air division sector receive "Conelrad alert" from the air division control center, either by private line or by toll terminal telephone circuit. On receiving this message, the stations then relay the alert to other stations by telephone, and, at the same time, interrupt their own broadcast carrier wave in a prescribed manner, followed by an alert message which is the signal to all listening stations that CONELRAD alert has been initiated.

All broadcasting stations are required to monitor the stations that are alerted by telephone, and, at the same time, are required to accept the CONELRAD alert whenever the monitored station puts into operation its system of carrier wave interruptions.

Immediately on receipt of the alert, each broadcasting station transmits an announcement to the public to tune to 640 kc or 1240 kc on a standard AM receiver; the station then will cease to transmit until the alert is over. It is at

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Dr. Gerstell (left) demonstrates radiological equipment to Ross I. Webb, Western Area Director (right) and Judge Clyde Shumaker (center), Butler County.

"DUCK AND COVER" SAYS GERSTELL

"PENNSYLVANIA'S civil defense program in the event of either a hydrogen or an atom bomb attack is keyed on the duck and cover theory, and it will be two years before enough warning will be provided for a practical evacuation program."

So spoke Dr. Richard Gerstell, State Civil Defense Director, before meetings of local CD Directors in each of the three areas in the Commonwealth. Dr. Gerstell made it clear that he was not saying that evacuation studies should not be carefully made for all cities, but he stressed that it would be at least two years before there would be adequate warning time to put such plans to use.

"As yet we can only be assured fifteen minutes' warning," he said, "and you can't empty a city in fifteen minutes." "The only principle now," he went on, "is the theory of 'duck and cover.' People must learn to seek shelter or cover in case of attack in order to diminish or eliminate death or injury in the circles of radiation."

After attack, he added, there would possibly be two kinds of public activity, most of which would be "duck and cover," with the addition of evacuation of relatively small areas, to avoid the dangers of radiation. He pointed out that there are three major zones, roughly described as circles (although they will be irregular). In the first,

or area of total damage, there is one chance in a hundred of survival.

The second circle is the heavy damage area, where chances of survival are 50 in a 100 if nothing is done; "but if principles of duck and cover are followed," he said, "even in this area chances of survival would be increased to a four-to-one level."

"We must remember," he said, "that despite all the talk about radiation, the great dangers still remain blast and fire."

"Most buildings provide more protection from radioactive fallout than people have been led to believe," he said.

He suggested that in the event of heavy radiation, in rural areas where roads are not congested there might be some sort of evacuation lateral to the cloud. Due to the shape of the typical fallout, anyone driving 25 or 30 miles in either direction at a right angle to the wind would probably be out of the danger zone. However, he said, the best commonsense policy would be to stay home and "hole up."

He said that a living room on the first floor of a typical house would furnish approximately 50 per cent protection from lingering radioactivity; by taking refuge in the average basement, the householder ups his safety factor to 90 per cent, he said.

Although people might have to stay

in shelters for several days, until CD teams pronounced the area "safe," they would have no food problem if they observed simple precautions. He warned that no one should eat food which had been in the open; however, he repeated again that any food which had been in closed cans or bottles, or wrapped in tinfoil or wax paper would be safe. He proved his point by unwrapping and eating a chocolate bar which had been held next a capsule of radioactive material.

"There is no such thing as protective clothing," Dr. Gerstell told his audiences, "unless you want to make yourself a lead suit. However, ordinary clothing affords some protection, as most of the radioactivity will stick to it. Thus a person can eliminate most of the danger by discarding his clothing, and washing off body contamination with ordinary soap and water."

Turning to the availability of a water supply after a bomb drop, provided mains and pumping stations remain intact, Dr. Gerstell declared that 95 per cent of the water's radioactivity would be removed at the filter plant.

"Any water placed in a container in a refrigerator prior to the attack will be absolutely safe," he said. Most rural wells which are tightly covered should also be all right.

ITEMS FROM THE PRESS

Forty per cent of the U. S. population and more than half the nation's industry are concentrated in 40 big metropolitan centers.

Fed. of American Scientists.

* * *

The Soviet Union unveiled the largest budget in its history on February 3d, calling for a boost of about 12 per cent for defense.

(AP 2/3/55)

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The FHA will insure loans up to \$2500.00 for homeowners planning to build cyclone shelters in their backyards; three years to pay; 5 per cent discount rate. The loan comes under the heading of "home improvements."

* * *

The Army unveiled on March 2 a new device designed to give instant warning in the event of enemy germ warfare attack. The instrument, called an "aerosoloscope," could be to germ detection what the Geiger counter is to the detection of radioactivity. It is still undergoing tests at Camp Detrick by the Army Chemical Corps.

THE ECONOMIC CONSEQUENCES OF ATTACK

By DAVID F. CAVERS, Associate Dean
of Harvard Law School

(From a speech made before the Philadelphia CD Council, January 19, 1955.)

THE REAL PROBLEM, the real objective of civil defense is to win a war. The risk of our defeat lies more in the danger of social and economic disintegration behind the fighting line than it does in the risk of military set-back.

Now, when we come to look at *that* danger, we have to recognize that the winning of the war is as much—or even more—a problem for the *unbombed* areas as it is for those communities in the target zones. We have to count on the ability of the unbombed part of the country to carry out our war activities, to maintain our war potential, and to keep the social organism, the economy of the country operative, so that we don't break down into hundreds of little "Operations Survival." When we view the problem that way, the importance of advance economic arrangements becomes evident. We are not going to be able to work out plans at the leisurely rate which a war fought three thousand miles away would permit us to do. We have to be prepared overnight to meet a thousand and one new problems.

In order that we can conceive the problems in somewhat more concrete terms, I have used four categories of communities:

Class A comprises the communities which have been hit, and their immediate environs, the areas that have been engulfed by tides of refugees and have met the full force of the ensuing dislocations;

Class B comprises the communities that have not been hit but have reason to fear they will be next. It seems to me that so far we have underestimated this group in our planning.

Class C comprises those communities which are not targets in themselves but are in the vicinity of Class A and B cities, and therefore will be flooded with people who have left A and B cities. Their economies would, therefore, be disrupted.

Class D represents communities remote enough to present no problem, at least at first.

I believe we have tended to think too much in terms of one big attack and to assume that then the atomic phase of the war would be ended. That might be; it might be that the only attack the enemy could deliver would be the initial surprise attack. However, I do not think we can make our plans on that basis. I think we have got to face up to the possibility

that, while the first attack might be far greater than any other the enemy could launch, it probably would not be the last one. In that event, we would have a still further impetus to evacuation (and therefore economic dislocation) as succeeding attacks came in. We would also have an incentive for the people who had been evacuated to stay out of the communities they had left as long as they were seriously in danger.

As you look over the situation, I think you will see what a strain the American economy would have to adjust to, even without taking into account the terrific losses which would be sustained in the target areas.

When we come to evaluate the significance of these dislocations, the thing we have to keep uppermost in our minds seems to be the fact that this country operates as a credit economy. It is a free enterprise system in which decisions are made by millions of people each day, and many of these decisions are embodied in promises and counter-promises. These promises are based on the expectation of performance, on credit ratings, on long experience in dealing with people in other parts of the country whose word is as good as their bond. The kind of economy that is thus constituted is, I think, peculiarly vulnerable to the effects of an atomic attack, unless plans have been made to cushion the impact of that attack. Particularly is this so if the attack is centered on the great commercial and financial centers.

Target: Industry or Finance?

I know a great deal of thinking has assumed that industrial centers, especially where there is high military production, would be the points where the enemy would strike first. I am not sure that evaluation is sound. It is at least enough open to question that we ought to consider that the commercial and financial centers *might* be first attacked. It takes some time for the impact of an attack on a steel plant to affect the war potential of the country.

Moreover, I think we have got to reckon as a possibility that an atomic war would be fought largely out of inventory, and that we would not have the great dependence on military production we experienced in World Wars I and II. At any rate, we should consider the possibility that, among the initial victims of an attack, would be the great commercial and financial cen-

ters. They are the ganglia of the nervous system that our credit system constitutes. If those centers are out and we have no stand-by institutions prepared to take over, we are in very real hazard of economic paralysis.

Now, what can be done about this? One rather obvious measure that is called for in a case of a catastrophic change in conditions is a moratorium. I think we would need a moratorium.

Banks

In designing a moratorium, one of the obvious problems is, how about bank accounts? If we have a vast number of people moving away from their homes, and if in their own communities at least a substantial number of the banks have been physically destroyed, administratively disorganized, and probably, by ordinary standards, are insolvent, we have a very serious policy problem: to what extent should the Federal Government be prepared to back their accounts? Moreover, what mechanisms can be devised to permit the displaced millions to reach institutions where they can get money they had deposited in their banks?

This is far more than a problem of record-keeping. Sometimes I feel that if microfilm had never been invented, we would be considerably further along in our planning than we are now. Many people have found an outlet for worry in getting records down in microfilm. But there remain the problems:

- a) Who is going to read the records?
- b) To what extent do the facts on the records exist after attack?
- c) Once the records have been read, who is going to do what?

Although maintaining records on microfilm out of the target area, but not too far away, is an important part of the planning process, the problems that follow seem to me even more serious.

Wages

We would have a problem of wage claims. If there were a general moratorium and people were dependent on their wages which were frozen, the moratorium would be sure to create troubles. Therefore these two elements, bank deposits and wage claims, have to be seriously considered. Moreover, a moratorium is a bit like a tourniquet. You put it on a limb to stop a hemorrhage, but if you keep it on too long, the limb is seriously injured. How then should we design a retreat from the moratorium, an orderly shift

(Continued from page 6)

back to a credit system? I think a study by financial leaders, lawyers, and business executives could throw a great deal of light on that problem.

Inflation

I think a great mistake would be made if we thought we could carry over our experience in the handling of inflationary pressures and rationing problems as we had them in World War II, to a post-attack period. Then we took ordinary patterns of consumption, saw that they were maintained on an equitable basis, and cut down a little so as to adjust to minor reductions in supply which the nation experienced.

This won't be the picture after atomic attack. Nor do I think after a great atomic hazard, people will rush to convert money into goods as they do following most emergencies. I do not believe it for this reason: Over wide areas people would be moving away from their homes, and, of necessity, they would be traveling light. They would not know where they were going next. They would want to hang onto cash. We would see behavior quite different from the classical response of a threatened economy, the flight of money into goods. Moreover, there would be less money available immediately after attack. With the dislocation of markets, would come the closing down of a vast number of industries producing consumer goods, perhaps because they lacked supplies, perhaps because they lacked markets, working capital or, above all, management.

Unemployment

The problem that we would face much more than inflation would be how to get our economy going again so that we would not have vast throngs of unemployed people with undermined morale standing around in the cities hoping for relief checks. There must be some form of guarantee administered by banking organizations in the manner of V-loans during the war, with appropriate streamlining; and guarantees of the credit of merchants in one community who are buying from suppliers in another; the provision of direct relief in terms of money and goods where that would be necessary; and finally the use of stand-by orders—all these devices would enable us to maintain a healthful degree of economic activity in the areas which were not immediately under attack.

Management

Obviously there are needs in a

period of atomic attack for managerial decisions of great importance; I am not sure that our corporate managements have adequately worked out the problems of managerial succession that would be involved. Also I am unsure that our laws are sufficiently adapted to take care of those contingencies, and they are real ones.

One time a test was made by FCDA involving the assumption that 41 specific cities were involved. A large corporation looked to see where its directors would have been if there had been a real attack on that day involving those cities. It was a nationwide corporation. All but *one* of the directors was found to have been in the cities assumed to have been attacked.

Stand-by Planning

One of the devices that is needed in the large cities is to work out stand-by arrangements with communities that are less exposed to attack. Banks need stand-by co-trustees under personal trust indentures, and under corporate indentures; they need stand-by paying offices to handle their deposits. Lawyers, above all, need stand-by correspondents in the smaller communities, lawyers who would have a sufficient familiarity with clients' affairs to be able to take over without too much difficulty in times of stress, and at least supply space and files for the surviving counsel from the A and B communities.

Summary

There is one rather consoling element in considering this planning problem—and it has many facets which I have not touched on—and that is that compared to the cost of providing effective military establishment or the cost of adequate continental defense or the cost of the redistribution of industry, the cost of adequate planning is exceedingly small. What it does require is the time and thought of a good many people, but I do not think it would make excessive demands on them if they would organize to tackle the job.

Mr. Gallup reports that CD authorities worried over the shortage of available civilian workers, are likely to encounter increasing pressure from the public to pay more attention to a large source of manpower, as yet untapped. The latest poll showed the public overwhelmingly in favor of a suggestion to require all physically-fit young men, deferred from the draft, to spend five or six hours a week in some kind of CD work.

RESCUE TRAINING

RESCUE Instructor Training courses are being offered at Olney, Maryland, on May 16-27 and June 6-17. In addition a one-week Advanced Rescue Operations course is being conducted June 20-24. This course is open to all students who have completed a previous course at Olney "or an equivalent course offered by a State or local civil defense organization."

Here is an opportunity for your present rescue leaders to get further advanced training; the advanced instruction will include a "high rescue exercise," lowering casualties from multiple-story structures, such as office buildings, apartment houses, and industrial plants.

G.O.C., PLEASE NOTE

"ARRANGEMENTS have been made with the Atlantic Refining Company and the Sun Oil Company for the utilization of their oil pumping stations throughout Pennsylvania as Observers' Posts."

This announcement was made in "Aircraft Flash," the official magazine of the Ground Observer Corps, put out by the Air Defense Command. Anyone looking for a new location for their Post might do well to investigate this lead.

WEATHER MAN

BECAUSE of the need for long range and rapid forecasting of fall-out from nuclear weapons, and the need for someone with a good understanding of winds and currents, FCDA has added a weather scientist to its staff, Mr. Joshua Z. Holland.

Mr. Holland, then on Guam, made the final flight forecast used in the ordering by General Curtis E. LeMay, of B-29 to deliver the first atomic bomb in history, that dropped over Hiroshima August 6th, 1945.

He has been a pioneer worker in radioactivity of the atmosphere caused by nuclear explosions and is reported to be developing methods that are expected to give FCDA better ways to determine radioactivity in the air quickly at given points."

It is recommended that every level of Civil Defense appoint a Weather Man to help with the local weather information, which now has become of major importance in wisely directing the public, following attack.

CONELRAD

(Continued from page 4)

this point, in order to keep some radio stations on the air in the public interest, that CONELRAD goes into operation.

During CONELRAD operation, the broadcast program will originate in the local civil defense center and will be carried by telephone lines to a switching device in a local AM station, which automatically jumps programs from station to station. In this way, with all stations in the system broadcasting at low frequencies, no frequency can predominate in any area, and since no single station will be on the air more than 30 seconds at one time, or at any time reveal its identity, it can be seen how nearly impossible it would be for an enemy to obtain useful navigation bearings from these broadcasts. If a station, licensed by FCC, fails to follow these procedures during an alert, it stands to lose its license.

Although federally operated and military stations are included, in the main CONELRAD is confined to this nation's extensive commercial broadcasting industry which, in assuming this responsibility, renders a great public service.

In the brief three years since CONELRAD was officially authorized by presidential order, it has come a long way in solving one of the most extensive and complex communications problems ever undertaken. America's great radio, radar, and TV industry, working closely with FCC and the Continental Defense Command, constitutes yet another important phase in the air defense team, marching on common cause with the expanding Ground Observer Corps.

MEDICAL NOTES

Sixty thousand potential blood donors in Gary, Indiana, carry a tiny tattoo mark on their bodies which identify their blood type and Rh factor. The Collier's article (March 18) telling of the project, concluded by saying, "FCDA hopes that the day may come when tattooing of the blood type will be as prevalent as vaccination, making of America's millions a great walking blood bank, ready for immediate action in an emergency."

* * *

Sixty per cent or more of the people injured in an atomic attack would suffer burns, according to a report made before the Central Surgical Association in Chicago in February.

KEYSTONE DEFENDER

CIVIL DEFENSE CENTER

Quakertown, Pa.

RETURN POSTAGE GUARANTEED

Librarian
Periodical Sect.
Pennsylvania State Library
Harrisburg, Pa. 21

SEC. 34,66 P. L. & R.

U. S. POSTAGE

PAID

PHILADELPHIA, PA.

PERMIT No. 1705

PENNSYLVANIA NOTES

STATE Director Gerstell announced that at the turn of the year the State had 13,000 auxiliary police to support regular law enforcement in time of emergency.

CD Chief of York, Penna., proposes training 1,000 high school seniors for auxiliary police work.

An editorial in the Harrisburg News cites the traffic jam resulting from a recent downtown fire as a prime example of why auxiliary police are a vital necessity.

At a recent executive session of the State Chapter of the National Association of Postmasters, a resolution was passed providing for active voluntary participation in the CD program by Pennsylvania postmasters. Plans call for a Red Cross first aid course for postmasters in each county.

Lancaster city school board voted approximately \$3,000 for improving CD procedures throughout its schools.

* * *

Williamsport and Altoona are experimental areas in which a new approach is being made, organizing CD units in blocks of residential areas. Each block will have first aid and defense materials housed in a central dwelling. If the experiment works in these cities, it will be applied statewide. In Altoona, extensive press and radio publicity preceded a block census made in that city by the wardens. At the same time, housewives have been making a survey, by telephone, of the individuals in the city, as to their awareness and understanding of CD opinions about it, and availability as volunteers. They reported a markedly favorable response.

MANPOWER

(Continued from page 1)

Mention was made in the March Defender of the U. S. Public Health Service expansion of a reserve medical force, quickly available to carry out public health duties.

Not only Federal agencies but also some States are starting to grapple with this major problem of tabbing personnel so that if emergency occurs, they will be quickly available in key places.

N. Y. State Civil Defense Director Huebner, has announced his plans for the "total utilization" of the State's 6,500,000 labor force in the event of an atomic attack. Most States will have the authority to use the State employees following an attack, but this will be of minimum value unless advance plans are laid. General Huebner is leading the way in such planning. He has a newly-created "Manpower Service in Civil Defense" whose program involves a complete job classification of the force, as a guide as to who would be available, and what training they had had, in an emergency. The 175 offices of the State Division of Employment will assist in the new service.

The same sort of planning, studying, classifying, and indexing of personnel who would be available at short notice should be done at every level—county, city and township, as well as State and Federal. If the manpower problem, especially for key posts, is left undone or half done, there will inevitably be costly confusion, and chaos under emergency conditions.

The old slogan "do the best you can with what you have" is never more applicable than in this matter of manpower.